REMARKS

Rejection under 35 U.S.C. §102

Claims 1-3, 5, 7-8, 10, 12-14, 16-18 and 20 stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,141,720 to Jeffords *et al.* This rejection is respectfully traversed.

Claim 1 is an independent claim directed to a computer-implemented method. The method includes calling by a client object of a request lock method of a server object requesting access. The method also includes, when the server object decides to grant the access to the client object, calling by the server object of a lock granted method of the client object, such that the access by the client object is released when the client object returns the lock granted method.

U.S. Patent No. 6,141,720 to Jeffords *et al.* teaches methods for coordinating access to a shared object using a requesting process and a lock provider. The method is implemented using an acquire lock sub-protocol and a lock provider sub-protocol. See, for example, col. 4, lines 21-26. The acquire lock sub-protocol is called by the requesting process when a lock is desired, and the lock provider sub-protocol is called by the lock provider in order to grant a lock. See, for example, col. 4, lines 27-35, and col.5, lines 9-14.

In the Jeffords patent, the acquire lock sub-protocol is implemented in the requesting process. See, for example, col. 4, lines 27-35. Thus, when the requesting process desires a lock, it calls its own acquire lock sub-protocol. This differs from the invention of claim 1, in which a client object calls "a request lock method of a server object."

Furthermore, the Jeffords patent teaches that the lock provider sub-protocol is implemented in the lock owner process. See, for example, col. 5, lines 9-14. Thus, when the lock owner decides to grant access to the requesting process, it calls its own lock provider sub-protocol. This differs from the invention of claim 1, in which "when the server object decides to grant the access to the client object, calling by the server object of a lock granted method of the client object."

In addition, the Jeffords patent teaches a requesting process releasing access by sending a release lock message to the lock owner. See, for example, col. 6, lines 46-47. This differs from the present invention, in which "access by the client object is released when the client object returns the lock granted method."

Nowhere does Jeffords teach or suggest "calling by a client object of a request lock method of a server object requesting access," as recited in claim 1. Furthermore, Jeffords does not teach "calling by the server object of a lock granted method of the client object." In addition, the Jeffords patent fails to teach "access by the client object is released when the client object returns the lock granted method," as recited in claim 1. Accordingly, since Jeffords fails to disclose the features of the claimed invention, applicant respectfully submits that claim 1 is patentable over Jeffords, and withdrawal of the rejection is respectfully requested.

Claim 5 is an independent claim directed to a machine-readable medium having instructions stored thereon for execution by a server object governing access to perform a method. The method includes receiving a call from a client object of a request lock method of the server object requesting the access. The method also includes determining to grant the access to the client object and, upon determining to grant the access to the client object, calling a lock granted method of the client object, such that the access by the client object is released when the client object returns the lock granted method.

As discussed above, Jeffords teaches a requesting process that calls its own acquire lock sub-protocol, and a lock provider that calls its own lock provider sub-protocol. Furthermore, Jeffords teaches a requesting process releasing access by sending a release lock message to the lock owner. Nowhere does Jeffords teach or suggest "receiving a call from a client object of a request lock method of the server object requesting the access," "calling a lock granted method of the client object," or "access by the client object is released when the client object returns the lock granted method," as recited in claim 5. Accordingly, because Jeffords fails to disclose each feature of claim 5, applicant respectfully submits that claim 5 is patentable over Jeffords under 35 U.S.C. §102(e).

Claim 7 is an independent claim directed to a machine-readable medium having instructions stored thereon for execution by a client object desiring access governed by a server object to perform a method. The method includes calling a request lock method of the server object requesting the access and further includes receiving a call from the server object to a lock granted method of the client object granting the access, such that the access is released when the client object returns the lock granted method.

As discussed above, Jeffords teaches a requesting process that calls its own acquire lock sub-protocol, and a lock provider that calls its own lock provider sub-protocol. Furthermore, Jeffords teaches a requesting process releasing access by sending a release lock message to the lock owner. Nowhere does Jeffords teach or suggest "calling a request lock method of the server object requesting the access," "receiving a call from the server object to a lock granted method of the client object granting the access," or "access is released when the client object returns the lock granted method," as recited in claim 7. Accordingly, since Jeffords fails to disclose each feature of claim 7, claim 7 is patentable over Jeffords under 35 U.S.C. §102(e).

Claim 10 is an independent claim that relates to a computerized system. The computerized system includes at least one client object, each client object having a lock granted method, and a server object governing access to data having a request lock method. Claim 10 further includes the limitation that a client object requests the access to the data by calling the request lock method of the server object, and when the server object decides to grant the access to the client object, the server object calls the lock granted method of the client object, the access released by the client object when the client object returns the lock granted method.

As discussed above, Jeffords teaches a requesting process that calls its own acquire lock sub-protocol, and a lock provider that calls its own lock provider sub-protocol. Furthermore, Jeffords teaches a requesting process releasing access by sending a release lock message to the lock owner. Nowhere does Jeffords teach or suggest a "client object having a lock granted method" or "a server object governing access to data having a request lock method." Furthermore, Jeffords fails to teach a client object "calling the request lock method of the server object," "the server object calls the lock

granted method of the client object," or "the access released by the client object when the client object returns the lock granted method," as recited in claim 10. Accordingly, because Jeffords fails to show each feature of claim 10, claim 10 is patentable over Jeffords.

Claim 12 of the present invention is an independent claim directed to a computerized system. The system includes at least one client object, each client object having a lock granted method, and a server object governing access to data having a server request lock method. The system also includes an object queue to manage the access to the data governed by the server object by having a proxy lock granted and proxy request lock method. Claim 12 further recites that a client object requests the access to the data by calling the proxy request lock method of the object queue, the object queue then calling the server request lock method of the server object, the server object then calling the proxy lock granted method of the object queue, and the object queue then calling the client lock granted method of the client object.

In embodiments of the present invention, the proxy lock granted and proxy request lock methods function such that the "server object does not have to deal with a number of client objects desiring access to the data, but rather only has to deal with object queue" (see p 12, lines 9-10) and such that "the server makes only a single lock granted call, no matter how many times the queue (or any other client) asks for access" (see p 14, lines 8-9).

The Jeffords patent teaches a queue of requesting processes used to store pending requests for access. After a requesting process releases access, the lock provider grants access to a requesting process in the queue. Thus, unlike the invention of claim 12, the lock provider grants access to each lock requester in turn, rather than granting access to queue, as set forth in claim 12. See, for example, col. 7, lines 4-26.

Nowhere does Jeffords teach or suggest an object queue "having a proxy lock granted and proxy request lock method." Furthermore, Jeffords fails to teach a client "calling the proxy request lock method of the object queue," "the object queue then calling the server request lock method of the server object," "the server object then calling the proxy lock granted method of the object queue," or "the object queue then

calling the client lock granted method of the client object." In addition, as described above with reference to claim 1, Jeffords fails to teach a "client object having a lock granted method" or "a server object governing access to data having a server request lock method." Accordingly, Jeffords fails to show each feature of claim 12 and therefore claim 12 is patentable over Jeffords.

Claim16 is an independent claim directed to a computer-implemented method. The method includes calling by a client object of a proxy request lock method of an object queue and requesting client access to data ultimately managed via a server object. The method further includes, upon determining by the object queue that the object queue is currently not waiting for proxy access to the data, calling by the object queue of a server request lock method of the server object requesting the proxy access. The method also includes, when the server object decides to grant the access to the object queue, calling by the server object of a proxy lock granted method of the object queue. The method also includes calling by the object queue of a client lock granted method of the client object.

As discussed above in reference to claim 12, the Jeffords patent teaches a queue of requesting processes used to store pending requests for access. After a requesting process releases access, the lock provider grants access to a requesting process in the queue. Thus, unlike the invention of claim 16, the lock provider grants access to each lock requester in turn instead of granting access to the queue as set forth in claim 16.

Nowhere does the Jeffords patent teach or suggest "calling by a client object of a proxy request lock method of an object queue" or "calling by the object queue of a server request lock method of the server object requesting the proxy access." Furthermore, Jeffords fails to disclose "calling by the server object of a proxy lock granted method of the object queue." or "calling by the object queue of a client lock granted method of the client object." Accordingly, the features of claim 16 are not taught by Jeffords, and claim 16 is patentable under 35 U.S.C. §102(e).

Claims 2-3 and 8 depend on claims 1 and 7, respectively. Claims 13-14 depend on claim 12, and claims 17-18 and 20 depend on claim 16. These claims define further features of the invention. Accordingly, applicant respectfully submits that these claims

are patentable over the art of record for at least the reasons cited above in reference to the independent claims.

Rejections under 35 U.S.C. §103

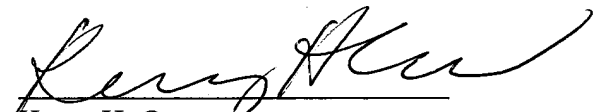
Claims 4, 6, 9, 11, 15, and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 6,141,720 to Jeffords *et al.* in view of US Patent No. 6,026,401 to Brealey *et al.* This rejection is respectfully traversed. Claim 4 depends from claim 1, claim 6 depends from claim 5, and claim 11 depends from claim 10. Claim 15 depends from claim 12, and claim 19 depends from claim 16. Accordingly, applicant respectfully submits that these claims are patentable over the art of record for at least the reasons cited above in reference to the independent claims. Withdrawal of the rejection is therefore respectfully requested.

CONCLUSION

Claims 1-20 are pending in this application. Claim 12 has been amended. In view of the amendments and remarks, applicant respectfully requests that this application be allowed and passed to issue. Should any issues remain prior to issuance of this application, the Examiner is urged to contact the undersigned prior to resolve the same. The Commissioner is hereby authorized to charge any additional amount required, or credit any overpayment, to Deposit Account No. 19-2112.

Respectfully submitted,

Date: August 25, 2003



Kerry H. Owens
Reg. No. 37,412

SHOOK, HARDY & BACON L.L.P.
One Kansas City Place
1200 Main Street
Kansas City, Missouri 64105-2118
Phone: (816) 474-6550